Review of 6-1 through 6-3 **Name**_____

Let's say you are trying to decide whether to take statistics from one of two professors – Dr. X and Dr. Y. Imagine that both professors assign A's to students scoring 90 points and above and F's to students scoring 60 points and below on the final exam. Suppose the distribution of scores on Dr. X's final exam is normal, with a mean of 74 points and a standard deviation of 7 points. Suppose the distribution of scores on Dr. Y's exam is also normal, with a mean of 78 points and a standard deviation of 18 points.

#1) Understanding the situation: Draw a normal distribution for each professor's class and answer the following questions based on what you see in your pictures.

a.) Which professor would assign more A's? Why?

b.) Would you expect Dr. X to assign more F's? Why?

c.) Based only on the information above, from which professor would you rather take a statistics course? Why?

Review of Normal Distributions and working with Z-scores: We will use this situation to recall how to convert our numbers to z-scores so that we can use the standard normal curve and Table A-2 to find the exact proportion of students who received an A and F in each professors class. Take some time to familiarize yourself with Table A-2 once again before you get started.

#2) Dr. X: His final has a mean of _____ and a standard deviation of _____.

a.) Find the proportion of A's given in Dr. X's class.

b.) Find the proportion of F's given in Dr. X's class.

c.) Do these results match the normal distribution that you sketched for Dr. X's class?